

Amendments to the Claims:

Claims 15, 22, 24 and 31 to 33 are amended as set forth hereinafter.

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1 to 14 (Cancelled).

15. (Currently Amended) A method for operating an internal combustion engine including an engine for a motor vehicle, the method comprising the steps of:

directing fuel into a combustion chamber of said engine and  
combusting said fuel therein;

drawing a conclusion as to deposits in said combustion chamber from at least monitoring the effects of a cylinder equalization during operation of said engine; and,

thereafter initiating measures in a targeted manner for  
cleansing said combustion chamber while said engine continues to  
be in operation.

16. (Previously Presented) The method of claim 15, comprising at least one of the following further steps of:

bringing about a knocking combustion to cleanse said combustion chamber; and,

5                   adding a cleansing or detergent liquid to combustion air  
inducted by said engine.

17. (Previously Presented) The method of claim 16, wherein said  
cleansing liquid is water.

18. (Previously Presented) The method of claim 16, wherein said  
measures are conducted for a predetermined time duration.

19. (Previously Presented) The method of claim 16, wherein said  
measures for cleansing said combustion chamber are carried out so  
long until no deposits are detected in said combustion chamber.

20. (Previously Presented) The method of claim 19, wherein said  
measures for cleansing said combustion chamber are carried out  
only so long as no damage to said engine is to be expected.

21. (Previously Presented) The method of claim 15, wherein said  
measures for cleansing said combustion chamber are carried out as  
a precaution at predetermined time intervals for a predetermined  
time duration.

22. (Currently Amended) ~~The method of claim 15 in combination  
with a direct injecting engine, wherein said method comprises the  
further steps of:~~ A method for operating an internal combustion  
engine including an engine for a motor vehicle, the method  
comprising the steps of:

directing fuel into a combustion chamber of said engine and

combusting said fuel therein;

drawing a conclusion as to deposits in said combustion chamber from at least monitoring the effects of a cylinder 10 equalization;

thereafter initiating measures in a targeted manner for cleansing said combustion chamber;

directly injecting fuel into the combustion chambers of said engine with the aid of injection valves in a first operating mode 15 during an induction a compression phase or in a second operating mode during a compression an induction phase;

continuously carrying out a misfire detection;

when detecting misfires during operation of said engine in said first operating mode, then switching over into the second 20 operating mode; and,

when misfires also occur in the second operating mode, drawing a conclusion as to a general fault and starting additional diagnostic methods for narrowing down the fault causes.

23. (Previously Presented) The method of claim 15, wherein said engine is a diesel engine.

24. (Currently Amended) A method for operating a direct-injecting internal combustion engine including an internal combustion engine of a motor vehicle, the method comprising the steps of:

5 directly injecting fuel into the combustion chambers of said engine with the aid of injection valves in a first operating

mode during ~~an induction~~ a compression phase or in a second operating mode during ~~a compression~~ an induction phase;

10 continuously carrying out at least one of a cylinder equalization with monitoring of effects and a misfire detection;

drawing a conclusion as to the coking of the injection valves when a fault signal of said monitoring of effects is present or, when detecting a misfire during operation of said engine in said first operating mode, switching over to said 15 second operating mode; and,

when no misfire occurs in said second operating mode, drawing a conclusion as to deposits on the nozzles of said injection valves or a coking of said injection valves.

25. (Previously Presented) The method of claim 24, comprising at least one of the following further steps of:

bringing about a knocking combustion to cleanse said combustion chamber; and,

5 adding a cleansing or detergent liquid to combustion air inducted by said engine.

26. (Previously Presented) The method of claim 25, wherein said cleansing liquid is water.

27. (Previously Presented) The method of claim 25, wherein said measures are conducted for a predetermined time duration.

28. (Previously Presented) The method of claim 25, wherein said measures for cleansing said combustion chamber are carried out so

long until no deposits are detected in said combustion chamber.

29. (Previously Presented) The method of claim 28, wherein said measures for cleansing said combustion chamber are carried out only so long as no damage to said engine is to be expected.

30. (Previously Presented) The method of claim 24, wherein said measures for cleansing said combustion chamber are carried out as a precaution at predetermined time intervals for a predetermined time duration.

31. (Currently Amended) A computer program comprising:  
program-code means for carrying out a method for operating an internal combustion engine when executed on a computer, the method including the steps of:

5                   directing fuel into a combustion chamber of said engine and combusting said fuel therein;

                  drawing a conclusion as to deposits in said combustion chamber from at least monitoring the effects of a cylinder equalization during operation of said engine; and,

10                   thereafter initiating measures in a targeted manner for cleansing said combustion chamber while said engine continues to be in operation.

32. (Currently Amended) A control apparatus for operating an internal combustion engine including an internal combustion engine of a motor vehicle, the control apparatus comprising:

means for controlling the supply of fuel into a combustion

5        chamber of said engine and combusting said fuel therein;  
          means for drawing a conclusion as to deposits in said  
          combustion chamber from at least monitoring the effects of a  
          cylinder equalization during operation of said engine; and,  
          means for initiating measures in a targeted manner for  
          cleansing said combustion chamber while said engine continues to  
          be in operation.

33. (Currently Amended) An internal combustion engine including an engine for a motor vehicle, the internal combustion engine comprising:

a cylinder and a piston conjointly defining a combustion chamber;

means for metering fuel to said combustion chamber; and,  
a control apparatus functioning to: control the metering of  
fuel into a combustion chamber of said engine and combusting said  
fuel therein; draw a conclusion as to deposits in said combustion  
chamber from at least monitoring the effects of a cylinder  
equalization during operation of said engine; and, thereafter  
initiate measures in a targeted manner for cleansing said  
combustion chamber while said engine continues to be in  
operation.